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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,604	07/20/2001	Kouichi Harada	09792909-5090	2174

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EXAMINER

WILSON, JACQUELINE B

ART UNIT

PAPER NUMBER

2612

DATE MAILED: 12/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/910,604

Applicant(s)

HARADA, KOUICHI

Examiner

Jacqueline Wilson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. Figures 7 and 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Morimoto (US 5,969,759).

Regarding Claim 1, Morimoto teaches a solid-state image apparatus comprising an image section having a plurality of pixels (referred to as photodiodes 101-1) arranged two dimensionally in the horizontal direction and in the vertical direction (see

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fig. 3), the image section comprising a first area formed of a first pixel group (101a) and a second area formed of a second pixel group (101b), and the first area and the second area being disposed adjacent to each other in the horizontal direction (see fig. 3), a first electric-charge transfer section (102a) disposed outside the image area for transferring the signal electric charges of the first area in the horizontal direction, and a second electric-charge transfer section (102b) disposed outside the image area for transferring the signal electric charges of the second area in the horizontal direction, and driving means for driving the first and second electric-charge transfer sections in an identical direction (toward the output sections 103a and 103b; col. 5, lines 61+).

Regarding Claim 2, Morimoto teaches the driving means drives the first and second electric-charge transfer sections by an identical driving signal (col. 6, lines 35-37).

Regarding Claim 3, Morimoto teaches the first and second electric-charge transfer sections are disposed such that the first electric-charge transfer section transfers only the signal electric charges of the first area (section 101a transfers to 102a) and the second electric-charge transfer section transfers only the signal electric charges of the second area (101b transfers to 102b).

Regarding Claim 4, Morimoto teaches a transfer section (referred to as vertical CCD registers 101-3, although one is labeled, fig. 3 shows a plurality within each section) for transferring the signal electric charges of the second area to the second electric-charge transfer section without passing through the first electric-charge transfer section (fig. 3 shows a plurality of transfer sections for transferring charges to elements

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102a, 102b, etc without passing through each other). Morimoto further teaches the first electric-charge transfer section is disposed between the first area and the second electric-charge transfer section (as shown in fig. 3 wherein 102a is between section 101a and 102b), and the transfer section is disposed between the second area and the second electric-charge transfer section (fig. 3 shows the vertical CCD registers in section 101b is between the second area and the second electric-charge transfer section, otherwise the transfer connection cannot be made).

Claim 5 is analyzed and discussed with respect to Claim 1 and 4. (See rejection of Claims 1 and 4 above.)

Regarding Claim 6, Morimoto teaches a driving method for a solid-state image device, the solid-state image device having an image section (fig. 3) having a plurality of pixels (referred to as photodiodes 101-1) arranged two dimensionally in the horizontal direction and in the vertical direction, the image section having a first area (101a) formed of a first pixel group and a second area (101b) formed of a second pixel group, and the first area and the second area being disposed adjacent to each other in the horizontal direction (see fig. 3), a first electric-charge transfer section (102a) disposed outside the image area for transferring the signal electric charges of the first area in the horizontal direction; and a second electric-charge transfer section (102b) disposed outside the image area for transferring the signal electric charges of the second area in the horizontal direction, the driving method comprising a step of transferring the signal electric charges of the first area to the first electric-charge transfer section (section 101a transfers to 102a), a step of transferring the signal electric charges of the second area

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to the second electric-charge transfer section (101b transfers to 102b) without passing through the first electric-charge transfer section (fig. 3 shows a plurality of transfer sections for transferring charges to elements 102a, 102b, etc without passing through each other), and a step of driving the first and second electric-charge transfer sections in an identical direction to output signal charges (toward the output sections 103a and 103b; col. 5, lines 61+).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morimoto (US 5,969,759).**

Claim 7 is analyzed and discussed with respect to Claims 1 and 4. (See rejection of Claims 1 and 4 above.) Morimoto further teaches a signal processing circuit for performing processing for combining output signals of the solid-state image apparatus to generate a signal corresponding to signal electric charges of one line in the image section (col. 7, lines 39-49). However, Morimoto fails to specifically teach an optical system for guiding incident light to the image section of the solid-state image apparatus. It is notoriously well known in the art to use a lens for focusing and guiding light of the object toward the image sensor. Therefore, it would have been obvious to

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one having ordinary skill in the art to include an optical system for guiding light to the image section.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jacqueline Wilson whose telephone number is (703) 308-5080. The examiner can normally be reached on 8:30am-5:00pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JW
12/16/04


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